

4.15. PUBLIC EDUCATION

Management Measure for Public Education:

Public education, outreach, and training programs should be instituted for boaters, as well as marina owners and operators, to prevent improper disposal of polluting material.

Management Measure Description

Public education is one of the most effective ways to reduce pollution in and around marinas and from recreational boating. A boating public that understands the causes and effects of pollution is more likely to want clean waters and healthy aquatic environments. If the public is told about the simple and effective ways that they can reduce their impacts on the environment, they are usually happy to do their part. One of the primary factors in the success of any pollution prevention program is widespread support for the program by an educated public.

Public education is a low-cost, effective, proven method to improve and reinforce environmentally conscious behavior in all segments of the public, including the boating public. The availability of a variety of public education materials on virtually all environmental issues and for all segments of the public makes this management measure easy to implement, and creating an education program with a message that is consistent from the state level through the local level to the level of the private or public marina is an excellent way to ensure that the right message is reaching as wide a public as possible.

Many states, localities, public and private agencies and organizations, and marina owners are using public education as a tool for combating pollution. This management measure supports efforts already being made and encourages others to join the educational campaign with public education programs of their own. A state might target registered boat owners, an organization might target its membership, and a marina might focus

on its patrons. Numerous examples of public education materials are available from national organizations like the National Marine Manufacturers Association, the National Clean Boating Campaign organized by the Marine Environmental Education Foundation, Inc. (or MEEF) (www.cleanboating.org), the National Oceanic and Atmospheric Administration's Sea Grant program (www.nsgo.seagrant.org), and EPA's Office of Water (www.epa.gov/OW). There is no reason to reinvent the wheel! Instead, time and effort can be saved by using available materials to create a program that focuses on a particular situation.

The EPA web site offers a couple of ways to find out who is involved in environmental activities in your watershed. One is from the homepage of the Office of Wetlands, Oceans, and Watersheds (OWOW), <www.epa.gov/owow>. A listing of specific groups involved in actions for watersheds throughout the United States can be found at the Surf Your Watershed homepage, <www.epa.gov/surf>. At this page, do the following:

- Click on *Locate your watershed*.
- Click on *Search by Map*.
- Select your state from the map.
- Within the state map, click on the watershed you're interested in.

The subsequent web page will tell you the name of the watershed you've chosen and the U.S. Geological Survey's cataloging unit number for it. Near the bottom of the page will be a section titled *People* that provides links to groups involved

with watershed protection activities in that watershed.

Another way to find out who is involved in activities in your watershed from EPA's homepage (www.epa.gov) is by clicking on the *Concerned Citizens* option. One of the options at the *Concerned Citizens* page is *Acting Locally*. This option provides links to national organizations active at the local and watershed levels.

If you find that there are no groups listed as working in your watershed, try following the first three steps above, and at the *Watershed Information* page, under *Working in Your Watershed*, click on either *How can I get involved in my watershed?* or *How do I start a watershed team?* to find out how you can get yourself and others involved.

EPA publishes many documents and fact sheets on topics of interest to boaters. A list of publications related to a specific topic can be obtained from the EPA homepage (www.epa.gov). At the homepage, select *Publications* and then browse and search the National Publications Catalog using keywords such as "boat," "storm water," or "discharge" to find what you are interested in. Some of the documents are available on the Internet, or they can be ordered on-line from the *Publications* web site. Most are free of charge.

The National Sea Grant Program encourages the wise stewardship of marine resources through research, education, outreach, and technology transfer. Sea Grant is a partnership between the Nation's universities and the National Oceanic and Atmospheric Administration (NOAA). Congress passed the National Sea Grant College Program Act to create Sea Grant in 1966. Today 29 Sea Grant Colleges are focused on making the United States the world leader in marine research and the sustainable development of marine resources. Sea Grant produces and makes available a wealth of information on marine topics—from public school curriculum materials to the most advanced scientific research. Visit the Sea Grant homepage (www.nsgo.seagrant.org) to see what publications are available, where the Sea Grant programs are located, and what kinds of research and activities they are involved in.

The U.S. Coast Guard (USCG) homepage at <http://www.uscg.mil> offers a link to the USCG *Marine Safety and Environmental Protection* page. Links to other programs from the USCG can be found most easily by clicking on the link to *Services We Provide* and then choosing what is of interest on the subsequent page. For example, the Sea Partners Campaign is an environmental education and outreach program focused on communities at large to develop community awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations. A link to listings of publications of the USCG is also provided at this web page.

Searching through an Internet search engine, such as Infoseek or Altavista, on *clean boating* should produce a number of links to sites with information on campaigns and organizations involved with clean boating issues. A few of the pages likely to appear as a result of the search are:

- California Clean Boating Network (CCBN) homepage, www.coastal.ca.gov/ccbn/ccbndx.html.
- Marine Environmental Education Foundation National Clean Boating Campaign, www.cleanboating.org.
- California Department of Boating and Waterways, www.dbw.ca.gov.
- Sea Grant Extension (San Diego) Boating Pollution Prevention Section, commserv.ucdavis.edu/CESanDiego/Seagrant/coastour.htm.
- Save Our Shores dockwalkers, www.saveourshores.org/dockwalkers.html.

A portion of funding from the Clean Vessel Act can be used for educational outreach regarding the effects of boater sewage and what boaters can do to avoid improper sewage disposal. Public awareness campaigns occur annually, and marinas are encouraged to participate in the National Clean Boating Campaign (Figure 4-25). Visit the campaign's web site at www.cleanboating.org. Major national CVA educational products produced by the joint effort have included a poster for distribution to more than 22,000 marinas, press

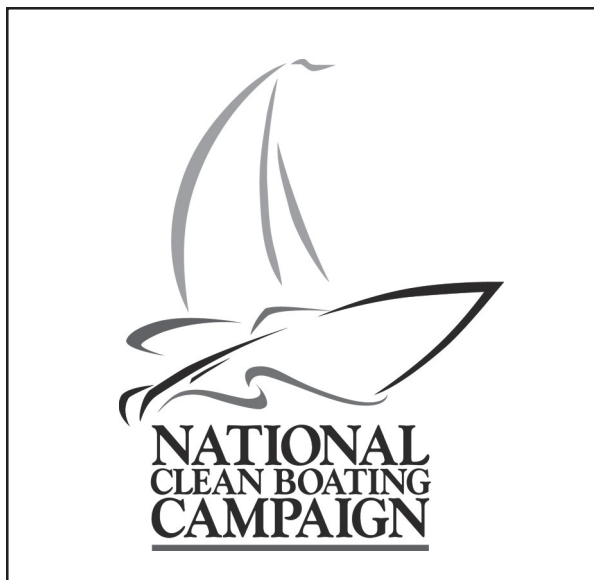


Figure 4-25. National Clean Boating Campaign logo.

and training packets, and various public service announcements for radio, television, and print media. States have also held similar events and are producing their own educational products.

These efforts are also geared toward informing boaters and marina operators of sewage disposal problems, educating them about the use and advantages of pumpout and dump stations, and where it is best to locate such stations. Boaters and anglers can call 1-800-ASK-FISH, a toll-free number established by the Sportfishing Promotion Council, to find the location of pumpout and dump stations near them and to report malfunctioning facilities.

Signage is an important element in any public education campaign, both to remind the educated to practice what they know and to educate the unaware of what they can do to reduce their impact on the environment. Short, simple, positive messages should be prominently posted wherever they will be helpful.

Applicability

This management measure is applicable to all groups and entities involved in boater education. Effective education programs can be implemented by states, organizations, or marina managers.

Best Management Practices

- ◆ *Use signs to inform marina patrons of appropriate clean boating practices.*

Interpretive and instructional signs placed at marinas and boat-launching sites are a key method of providing information to the boating public. Boater cooperation can be substantially increased at modest expense by using signs.

In a Rhode Island best management practice demonstration project, the use of signs was ranked by boaters as the best method to inform them about best management practices in the marina. It ranked second in terms of its effectiveness for getting boaters to use best management practices. Signs can be more cost-effective than other methods of education because they need be installed only once, and once in place they are effective for a long time. Inexpensive yet effective signs can be produced by a marina employee with a little artistic talent. Common topics for marina signage include solid waste disposal, liquid waste disposal, pumpout locations and instructions, and spill response instructions. Figure 4-26 shows an example of wording on a sign in Ponaug Marina (Rhode Island).

In areas where boaters are of various ethnic and cultural backgrounds, publishing education materials in the various languages appropriate to the region is encouraged.

- ◆ *Establish bulletin boards for environmental messages and idea sharing.*

Bulletin boards are a form of signage, and they allow marinas to post recent or new information

The Cap Sante Boat Yard (Washington) uses a materials exchange sheet in the harbor master's office that encourages sharing leftover varnishes, paints, and other boat maintenance products instead of discarding them. People with materials left over after a project list what they have on a sheet, and anyone who needs them can contact the person on the sheet (USEPA, 1996: *Clean Marinas—Clear Value*).

HARMFUL MATERIALS COLLECTION SITE. To ensure proper disposal, deposit harmful materials below. Liquids such as solvents, fuels, engine oils, and toxic antifreeze should be bottled and capped to prevent spillage. Keep incompatible liquids such as oil and antifreeze separate. Label all containers noting their content and origin. Oil filters and other absorbent materials should be packaged so as to prevent leakage. Thank you for helping to keep our marina and the boating environment clean.

Figure 4-26. Sign with instructions to patrons on proper disposal of materials.

for the benefit of their patrons. They are convenient places to post notices about the availability of dustless sanders for rent, environmentally friendly cleaners and antifouling paints, new practices and programs at the marina for reducing pollution, water quality monitoring results, how to maintain an engine to keep emission output low, or any other positive clean boating message. Marina patrons can be invited to post notices about leftover products (for example, varnish or paint) they have for sale or tips on practices they've found to be easy and effective for protecting the boating environment.

Bulletin boards are noticed more often if their contents are moved around or changed often and if the location of the bulletin board is changed occasionally as well.

◆ *Promote recycling and trash reduction programs.*

A New Jersey marina encouraged recycling by giving its patrons reusable tote bags with the marina's name printed on the side. The patrons used the bags to temporarily store recyclable glass, cans, and plastics from their boats for proper disposal later at a recycling collection point, and occasionally for grocery shopping. Promoting recycling is an effective way to reduce the quantity of solid and liquid waste placed in marina and surface waters.

◆ *Hand out pamphlets or flyers, send newsletters, and add inserts to bill mailings with information about how recreational boaters can protect the environment and have clean boating waters.*

The Washington State Parks and Recreation Commission designed a multifaceted public education program that encourages the use of marine sanitation devices and pumpout facilities, discourages impacts on shellfish areas, and

provides information to boaters and marina operators about environmentally sound boat operation and maintenance. The commission prepared written materials, gave talks to boating groups, participated in events such as boat shows, and developed signs for placement at marinas and boat launches. Printed materials included maps of pumpout facility locations, booklets explaining how boats pollute, pamphlets on the dangers of plastic debris in the water, and articles on the environmental effects of improper boat operation.

Marina owners can do the same on a smaller scale. Written materials can be made available at a marina's office, its supply store, or other places frequently visited by boaters or included with bills mailed to patrons.

Fact sheets ranked second among boaters for informing them about best management practices in a University of Rhode Island demonstration project. Fact sheets had the highest effectiveness rating and ranked first in getting boaters to actually use best management practices, but boaters generally didn't pick up educational flyers where they saw them. An important lesson from this demonstration project was that boaters cannot be expected to voluntarily take the information: brochures should be placed directly into their hands. Inserting fact sheets and information in newsletters or monthly mailings or handing them out with slip lease agreements are effective ways to do this.

◆ *Organize and present enjoyable environmental education meetings, presentations, and demonstrations and consider integrating them into ongoing programs.*

Presentations at local marinas or other locations are a good way to discuss issues with boaters and marina owners and operators. Boater workshops can also be a useful tool for introducing new environmental practices at marinas, but this

method was ranked last among methods for informing boaters about best management practices. Conducting successful formal workshops requires a considerable investment of time and resources. One of the best methods to inform marina patrons about best management practices is a walking tour of the facility with demonstrations of products and procedures so that participants see the benefits of management practices first-hand and gain hands-on experience in using the practices. Incentives for participation like door prizes, coupons for free pumpouts, or discounts at the marina store help bolster attendance.

- ◆ *Educate and train marina staff to do their jobs in an environmentally conscious manner and to be good role models for marina patrons.*

Marina staff who are fully educated and trained on all of the environmental management practices used at a marina—from how to use a pumpout station, where the recycling bins are located, and what can and can't be recycled to how storm water is treated and where it goes—can set an excellent example for patrons. Marina staff are the first people boaters will ask about a marina's environmental practices. An informed staff presents the image of an environmentally proactive marina, whereas an uninformed staff could make patrons think a marina is not concerned about environmental matters.

- ◆ *Insert language into facility contracts that promotes tenants' using certain areas and clean boating techniques when maintaining their boats. Use a contract that ensures that tenants will comply with the marina's best management practices.*

When a marina has established procedures for keeping the grounds and waters clean, cooperation from patrons is absolutely essential. The time and money spent to establish a clean marina can be negated by patrons who either don't share an enthusiasm for clean boating or mistakenly don't think it is their responsibility to keep the grounds and water clean. Language in slip contracts or other documents, such as dustless sander rental agreements, make them take notice and realize that the marina is serious about maintaining a clean marina, and clean boating in general. Some

patrons might elect to dock their boats at other marinas, but most boaters are glad to cooperate with a good cause.

- ◆ *Have a clearly written environmental best management practices agreement for outside contractors to sign as a precondition to working on any boat in the marina.*

A facility is often legally responsible for pollution problems created by negligent outside contractors. Because of this significant liability, outside contractors need to be provided with information that clearly explains the facility's pollution prevention policies and best management practices and clearly states the contractor's responsibility to operate in accord with the marina's policies.

- ◆ *Participate with an organization that promotes clean boating practices.*

Public and private organizations are available to assist in developing or providing educational materials. These materials can be tailored to suit an individual marina or yacht club or to be used as public service announcements. Some marina-oriented organizations that might be able to provide assistance with environmental education efforts are listed in [Appendix E](#).

Public Education Practices Applicable to Specific Management Measures

Some public education strategies specifically geared toward individual management measures are suggested below.

- ◆ *Provide MARPOL placards.*

International MARPOL law requires all boats of 25 feet or more in length to have a visible sign about trash disposal regulations posted where garbage is stored. Most boat retail stores and marinas have standard MARPOL signs available for sale to customers who need to comply with this legal requirement.

- ◆ *Paint signs on storm drains.*

Painted storm drains grab people's attention at a marina and help control disposal of solid and liquid wastes in inappropriate places. Cap Sante Boat

Haven (Washington) stencils its storm drains with pictures of crabs and fish and the words “DUMP NO WASTE – DRAINS TO BAY/LAKE/RIVER.”

- ◆ *Establish and educate marina patrons about rules governing fish cleaning.*

Marinas can issue rules regarding the cleaning of fish at the marina, depending on the type of services offered by the marina and its clientele. Marinas not equipped to handle fish wastes can prohibit fish cleaning at the marina; those that host fishing competitions or that have a large fishing clientele can establish fish cleaning areas with specific, enforceable rules for their use. Signs can be used to attract fishers to fish cleaning stations and explain the rules for their use.

- ◆ *Educate boaters about good fish cleaning practices.*

Some boaters need to be educated about the problems created by discarding fish waste into marina waters, proper disposal practices, the ecological advantages of cleaning fish at sea, and discarding wastes into the water where the fish were caught (if allowed). Signs posted on docks (especially if fish cleaning has typically been done there) and talks with boaters during the course of other marina operations help educate boaters about marina rules governing fish cleaning, waste disposal, and cleanup.

- ◆ *Provide information on local waste collection and recycling programs.*

Information on used oil recycling and collection programs for used products that are contaminated with oil or other petroleum products can be inserted in monthly newsletters or monthly bills or provided with slip leasing contracts. A clause requiring the use of fuel/air vent spill preventors and bilge absorption pads on all boats can be added to contracts.

- ◆ *Hold clinics on safe fueling and bilge maintenance.*

During special clinics on environmental practices or general clinics of interest to boaters, demonstrate the proper use and disposal of bilge oil pads and other petroleum control devices.

- ◆ *Teach boaters how to fuel boats to minimize fuel spills.*

Boaters need to understand that whenever they spill even a few drops of oil or fuel, the environment is harmed. There are simple steps boaters can take to prevent fuel loss: use an oil absorption pad to catch drops when the fueling nozzle is removed from the boat; install a fuel/air separator on the air vent line; and place an oil-absorbing pad in the bilge. Teach boaters that when they top off a fuel tank from an underground storage tank, the cool fuel expands as it heats up and will overflow through the air vent onto the water if there is not enough expansion space in the fuel tank. Spills of this type are even more dangerous when boats are placed in dry rack storage in buildings, where the fuel is a fire hazard. Antisiphoning valves can be installed on the engines of larger boats on the fuel line near the fuel tank to prevent fuel from draining if the fuel line breaks during an accident or fire.

- ◆ *Stock phosphate-free, nontoxic cleaners and other environmentally friendly products.*

Marinas can stock, advertise, and promote the use of phosphate-free, nontoxic cleaners and other environmentally safe products.

- ◆ *Place signs in the water and label charts to alert boaters about sensitive habitat areas.*

Many harbors establish and mark no wake zones near marinas or in narrow channels using floating marker buoys. Signs and buoys could also be used to designate sensitive environmental areas where boaters should exercise particular caution. As with other public education materials, these signs should be in multiple languages if appropriate to the region.

- ◆ *Educate boaters to thoroughly clean their boats before boating in other waterbodies.*

The spread of many exotic and invasive aquatic species can be controlled by ensuring that they are not transported from one waterbody to another on trailered boats. See [section 4.3](#), Habitat Assessment, for further information.

BMP Summary Table 15 summarizes the BMPs for Public Education mentioned in this guidance.

BMP Summary Table 15. PUBLIC EDUCATION MANAGEMENT

MANAGEMENT MEASURE: Public education, outreach, and training programs should be instituted for boaters, as well as marina owners and operators, to prevent improper disposal of polluting material.

APPLICABILITY: All groups and entities involved in public education for boaters.

ENVIRONMENTAL CONCERNS: A boating public that understands the causes and effects of pollution is more likely to want clean waters and healthy aquatic environments, and if they are told about the simple and effective ways that they can reduce their impact on the environment, they will usually be happy to do their part. Public education is one of the most effective ways to reduce pollution in and around marinas and from recreational boating.

PUBLIC EDUCATION PRACTICES

Best Management Practice Examples	Marina Location & Usage	Benefits to Marina	Projected Environmental Benefits	Initial Cost Estimate	Annual Operation & Maintenance Cost Estimate	Notes
Use signs to inform marina patrons of appropriate clean boating practices	Marinas and launch ramps; universally recommended	HIGH; cost-effective way to promote clean boating practices; every boater who boats cleaner helps keep the marina cleaner	MODERATE to HIGH; clean boating is good environmental practice	LOW to MODERATE	NONE to LOW	Boater cooperation can be substantially increased by using signs with positive messages; signs should be in all languages appropriate to the region.
Establish bulletin boards for environmental messages and idea sharing	Marinas where customers will stop and read; universally recommended	MODERATE; promotes an environmental image for the marina; inexpensive way to inform boaters of new policies and educational events; posting a materials exchange list for sharing leftovers will save money and reduce waste	MODERATE to HIGH; reduces waste produced and potentially limits water pollution, air pollution, solid and hazardous waste quantities	LOW	NONE to LOW	Move or change the contents often to increase visibility; locate a bulletin board where boaters will see it and where they spend a little time waiting, such as in a store or reception area; use several bulletin boards if necessary to reach all customers
Promote recycling and trash reduction programs	Marinas and launch ramps; generally recommended	MODERATE; recycling is often less expensive than waste hauling, especially if provided by a municipal recycling program	MODERATE; reduces the quantity of solid and liquid waste sent to landfills; reduces new resource use	LOW to MODERATE	LOW	Consider distributing reusable tote bags labeled with your marina's name for collecting and transporting recyclables to the recycling area.
Hand out pamphlets or flyers, send newsletters, and add inserts to bill mailings with information about how recreational boaters can protect the environment and have clean boating waters	Marinas and all boaters; universally recommended	MODERATE to HIGH; handouts promote clean boating practices; gives marina a positive environmental image	MODERATE; environmental harm is reduced with every person who boats with a conscious effort to protect the environment	NONE to LOW	NONE to LOW	Fact sheets are generally the most effective method of getting a message to boaters; many organizations and agencies have fact sheets available for photocopying and redistribution, e.g., NOAA, USFWS, EPA, local boating organizations, states, and others

BMP Summary Table 15. (cont.) PUBLIC EDUCATION MANAGEMENT

Best Management Practice Examples	Marina Location & Usage	Benefits to Marina	Projected Environmental Benefits	Initial Cost Estimate	Annual Operation & Maintenance Cost Estimate	Notes
Organize and present enjoyable environmental education meetings, presentations, and demonstrations and consider integrating them into other programs	Marina; universally recommended	MODERATE to HIGH; promotes a positive environmental image; boaters that are trained in proper procedure may reduce staff time spent on environmental cleanup	MODERATE to HIGH; educated boaters keep pollutants out of the water	LOW to MODERATE	LOW to MODERATE	Consider a walking tour of the facility with demonstrations of products and procedures; see National Clean Boating Campaign web site for examples: <www.cleanboating.org>
Educate and train marina staff to do their jobs in an environmentally conscious manner and to be good role models for marina patrons	Marina; universally recommended	HIGH; a trained staff can effectively prevent and respond appropriately to environmental problems; trained staff can teach good practices to boaters and give a positive, proactive clean marina image and can attract new customers	HIGH; prevention and quick response will help keep water clean	LOW to MODERATE	LOW to MODERATE	Marina staff are the first people boaters ask about a marina's environmental practices
Insert language into facility contracts that promotes tenants' using certain areas and clean boating techniques when maintaining their boats. Use a contract that ensures that tenants will comply with the marina's best management practices	Marina; universally recommended	HIGH; all boaters using the marina must use the same practices as those adopted by the marina to protect the environment; use of contract language and clean boating agreements legally binds customer to comply; helps share liability for cleanup costs; gives management an effective control tool for boater who does not want to comply	MODERATE to HIGH; good water quality results from cooperation of many boaters	LOW	NONE	Language in slip contracts gives customers notice of what is required and helps them realize that the marina is serious about maintaining a clean marina and promoting clean boating practices
Have a clearly written environmental best management practices agreement for outside contractors to sign as a precondition to working on any boat in the marina	Marina; universally recommended	HIGH; outside contractors comply with marina's best management practices; a signed contract can help distribute liability for cleanup costs and fines to outside contractors responsible for the problem	MODERATE; adherence to marina BMP standards helps protect water quality	LOW	NONE	A legally binding environmental agreement/contract lets outside contractors know the marina is serious about clean boating in general; agreement, signature, and compliance together form a common marina management tool

BMP Summary Table 15. (cont.) PUBLIC EDUCATION MANAGEMENT

Best Management Practice Examples	Marina Location & Usage	Benefits to Marina	Projected Environmental Benefits	Initial Cost Estimate	Annual Operation & Maintenance Cost Estimate	Notes
Participate with an organization that promotes clean boating practices	Marina; generally recommended	MODERATE to HIGH; by joining with existing environmental programs, the marina can use the materials (often free) provided for a local educational program	MODERATE; the environment is protected best when a common message is provided to all boaters	NONE to LOW	NONE to LOW	Become a Partner in the National Clean Boating Campaign; for more information visit their web site at < www.cleanboating.org >
Provide MARPOL placards	Boats; generally recommended	LOW; little effect on marina operations or costs	MODERATE; boaters return trash to shore-based facilities	NONE to LOW	NONE to LOW	Placards can be obtained from the U.S. Coast Guard or Center for Marine Conservation
Paint signs on storm drains	Storm drain inlets; generally recommended	MODERATE; lessens the chance that illegal substances will be discarded into storm drains	MODERATE; especially helpful where storm drains lead directly to surface waters	LOW	NONE to LOW	Paint in colorful, large, and obvious letters and pictures; indicate what surface waterbody receives the storm water, if applicable; having children help will raise their environmental awareness
Establish and educate marina patrons about rules governing fish cleaning	Marina; generally recommended	MODERATE; cooperative patrons lead to less work for marina staff	MODERATE; less fish waste discarded to basin waters	NONE to LOW	NONE to LOW	Rules are easy to follow when a convenient fish cleaning station is available
Educate boaters about good fish cleaning practices	Marina; generally recommended	LOW; lower cleanup costs and maintenance costs	MODERATE; less fish waste discarded to basin waters	NONE to LOW	NONE to LOW	See the Fish Waste management measure
Provide information on local waste collection and recycling programs	Marina; generally recommended	LOW to MODERATE; patrons might be more willing to take their recyclables to a local recycling center if none is available at the marina, reducing waste at the marina	MODERATE; recycling is an important waste reduction strategy	NONE to LOW	NONE to LOW	See the Solid Waste management measure
Hold clinics on safe fueling and bilge maintenance	Marina; generally recommended	MODERATE to HIGH; reduces the likelihood of a fuel spill and fire, of petroleum contamination in the water, and oil and grease spills on marina property	MODERATE; lowered incidence of fuel and other petroleum contamination	NONE to LOW	NONE to LOW	Spring, when many boaters are getting boats ready for the boating season, is a good time to hold clinics

BMP Summary Table 15. (cont.) PUBLIC EDUCATION MANAGEMENT						
Best Management Practice Examples	Marina Location & Usage	Benefits to Marina	Projected Environmental Benefits	Initial Cost Estimate	Annual Operation & Maintenance Cost Estimate	Notes
Teach boaters how to fuel boats to minimize fuel spills	Marina; generally recommended	MODERATE to HIGH; reduces the likelihood of a fuel spill and fire, and of petroleum contamination in the water	MODERATE; lowered incidence of fuel and other petroleum contamination	NONE to LOW	NONE to LOW	See the Petroleum Control management measure
Stock phosphate-free, nontoxic cleaners and other environmentally friendly products	Marina store; generally recommended	MODERATE to LOW; many such products are on the market, and patrons will welcome their availability for purchase at the marina	MODERATE; reduces the little spills that go unnoticed but add up to a lot of damage	NONE to LOW	NONE to LOW	See the Boat Cleaning management measure
Place signs in the water and label charts to alert boaters about sensitive habitat areas	Marina waters; generally recommended	MODERATE to HIGH; protection of shallow-water habitats helps protect shorelines from erosion	MODERATE; shallow-water environments are important ecologically	NONE to LOW	NONE to LOW	See the Boat Operation management measure; signs should be in multiple languages if appropriate.
Educate boaters to thoroughly clean their boats before boating in other waterbodies	Marina waters; generally recommended	MODERATE to HIGH; can prevent invasions of exotic species, which could be costly to control	MODERATE to HIGH; depends on whether the species has already established itself in the surrounding waters	NONE to LOW	NONE to LOW	